commands received by the mobile station is input to a first determination unit 40 which determines the received value of each power command. The value of each power command can fall in the range mentioned in relation to the first embodiment. A determination is then made as to whether each power control command represents 1 or -1 in a second determination unit 42. The second determination unit uses the method discussed in relation to Figure 2. The output of the second determination unit 42 will be the minimum of all of the power control values determined by the second determining unit 42.

The value of each power control command is output to a maximum ratio combining unit 44 which sums the values received from each of the base stations with which the mobile station is in communication. The actual values which are received are summed eg .3 and -.5. In preferred embodiments of the invention, all the values are given equal weight. However in other embodiments of the invention, the values may be weighted with respect to each other.

The summed value from the maximum ratio combining unit 42 and the minimum value (either 1 or -1) output from the second determination unit 42 are input to decision unit 46 which determines which of the two inputs has the minimum value. The minimum value is output by the decision unit 46. This output will control the transmission power of the mobile station and in particular whether it is decreased or increased. If the value from the second decision unit 42 is -1, the transmission power will be decreased regardless of the value output by the maximum ratio combining unit 44. If the output of the second determination unit 42 is +1, the power will only be increased if the value of the maximum ratio combining unit 44 is above a given threshold. Otherwise, the power will be decreased. The threshold may be the same or different to the threshold used by the second determination unit 42.

It should be appreciated that in some embodiments of the present

invention, the maximum ratio unit may be provided without the second determination unit and the decision as to whether to increase or decrease the power is made based on the summed value. A suitable threshold value is defined. If the sum is above the threshold, the power is increased. Below the threshold, the power is decreased. The summed valued may be divided by the number of power control values available.

Reference will now be made to Figure 4 which shows a third embodiment of the present invention. The embodiment shown in Figure 4 is the same as that shown in Figure 3 with the addition of an integration unit 48 in parallel with the second determination unit 42 and the maximum ratio combining unit 44. The integration unit 48 is arranged to receive the received power control values from the first determination unit 40. The minimum power control value is selected by the integration unit 48. This minimum power control value is added to minimum power control values which have been received previously. If the resulting sum is below a given threshold and the minimum power control value indicates that the power should be increased, then the integration unit 48 will output the value -1. In other words the output of the integration unit will indicate that the power should be decreased. When these circumstances occur, the sum will be reset to a reset value of, for example 0. Otherwise the integration unit 48 will output the selected minimum value. The output of the integration unit 48 is input to the decision unit.

The threshold value may for example be -0.6. The purpose of the integration unit is to prevent the power from being increased in error particularly in response to power increase commands derived fom a received value which is close to the threshold. In other words, if the power is increased too often in a given time frame, the next command to increase power will be ignored and the power will be decreased in that step. The threshold may be the same as that used by the second determination unit but is preferably different.

The behaviour of the integration unit can be summarised as follows:

sum of previous power command values and new power control value falls below the sum threshold and new power control value exceeds threshold which indicates that power control value represents an increase power command, then output a decrease power command and reset sum to 0 or any other appropriate reset value;

sum of previous power command values and new power control value falls below the sum threshold and new power control value falls below threshold which indicates that power control value represents an decrease power command, then output a decrease power command and reset the sum to its reset value;

sum of previous power command values and new power control value exceeds below the sum threshold and new power control value exceeds threshold which indicates that power control value represents an increase power command, then output an increase power command; and

sum of previous power command values and new power control value exceeds the sum threshold and new power control value falls below the threshold which indicates that power control value represents an decrease power command, then output an decrease power command and reset the sum to its reset value.

The decision unit 46 operates in the same manner as in the second embodiment except the minimum value of all three inputs are selected.

The integration unit 48 allows preceding power control commands to affect the behaviour of the mobile station taking into account the currently received power control command value. In other words a power control command history can be built up and used to influence current the power control behaviour of the mobile station.

In one modification of this embodiment, the integration unit 48 is arranged to process in parallel each of the power control